

Farm Digitization – First Thirty

2025

UNNECESSARY
COSTS



There are many neglected small farmers in South Africa that need our assistance with access to 4th Industrial Revolution and Artificial Intelligence based agriculture technologies.

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Smart Rural Development
(NPC)

Problem – Rural Communities Lack

- Access to 4th industrial revolution
- Access to 5th generation technologies
- Access to artificial intelligence based tools
- Access to skills and resources
- Access to Finance

**STEP
ONE**

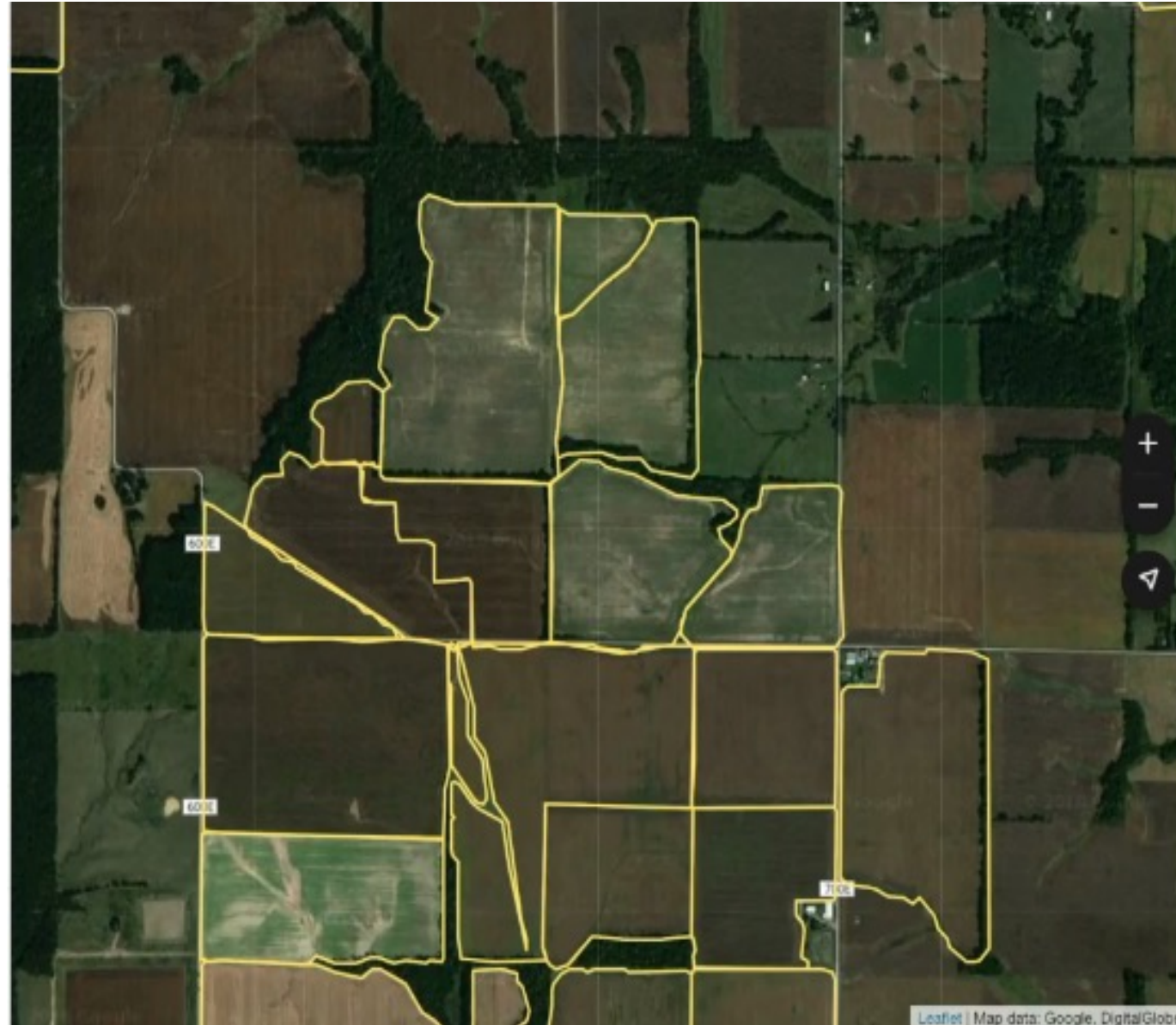
START WITH LAND DIGITIZATION

We start with community land digitization, to digitize and place digital boundaries on the community land.



FARM DIGITIZATION

We then digitize each farming land with boundaries



LAND DIGITIZATION

**We will start
with land
digitization**

**Geo-Fence
when animal
leave or come
back home, you
will get the
alarm**

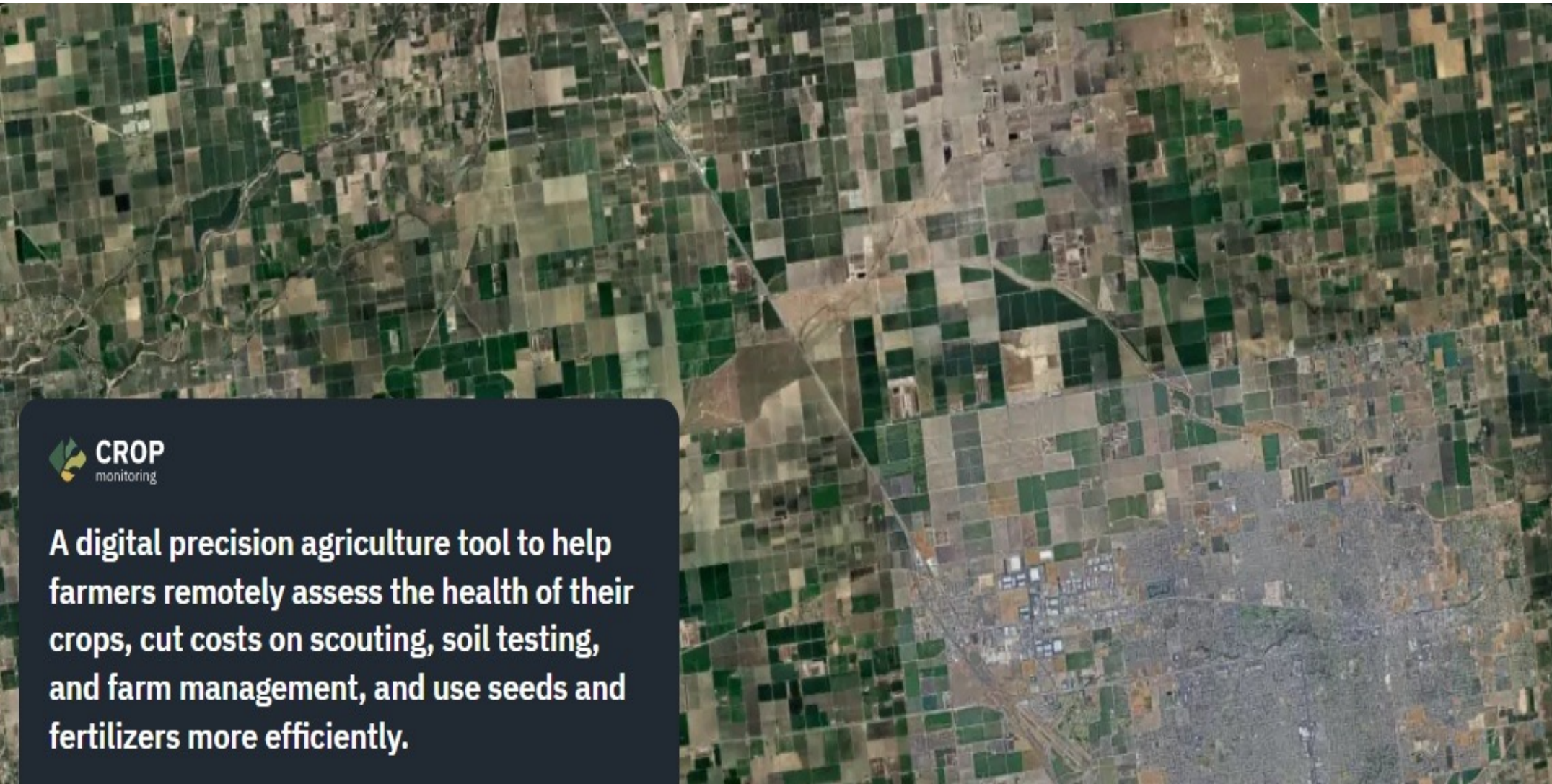


FARMER LAND DIGITIZATION

**We will then
digitize each
grazing land
with
boundaries**



We then digitize each field by crop type



A digital precision agriculture tool to help farmers remotely assess the health of their crops, cut costs on scouting, soil testing, and farm management, and use seeds and fertilizers more efficiently.



Smart Rural Development
(NPC)

livestock health through real-time monitoring

Each year, farmers lose significant amounts of profit due to animal illnesses. There are many ways that IoT-enabled livestock management solutions allow farmers to promote better livestock health:

Connected sensors in livestock wearables allow farmers to monitor heart rate, blood pressure, respiratory rate, temperature, digestion, and other vitals.

Data streamed to the cloud directly from wearables allows farmers to identify and address issues like illness and feeding problems before they significantly impact the herd's health.

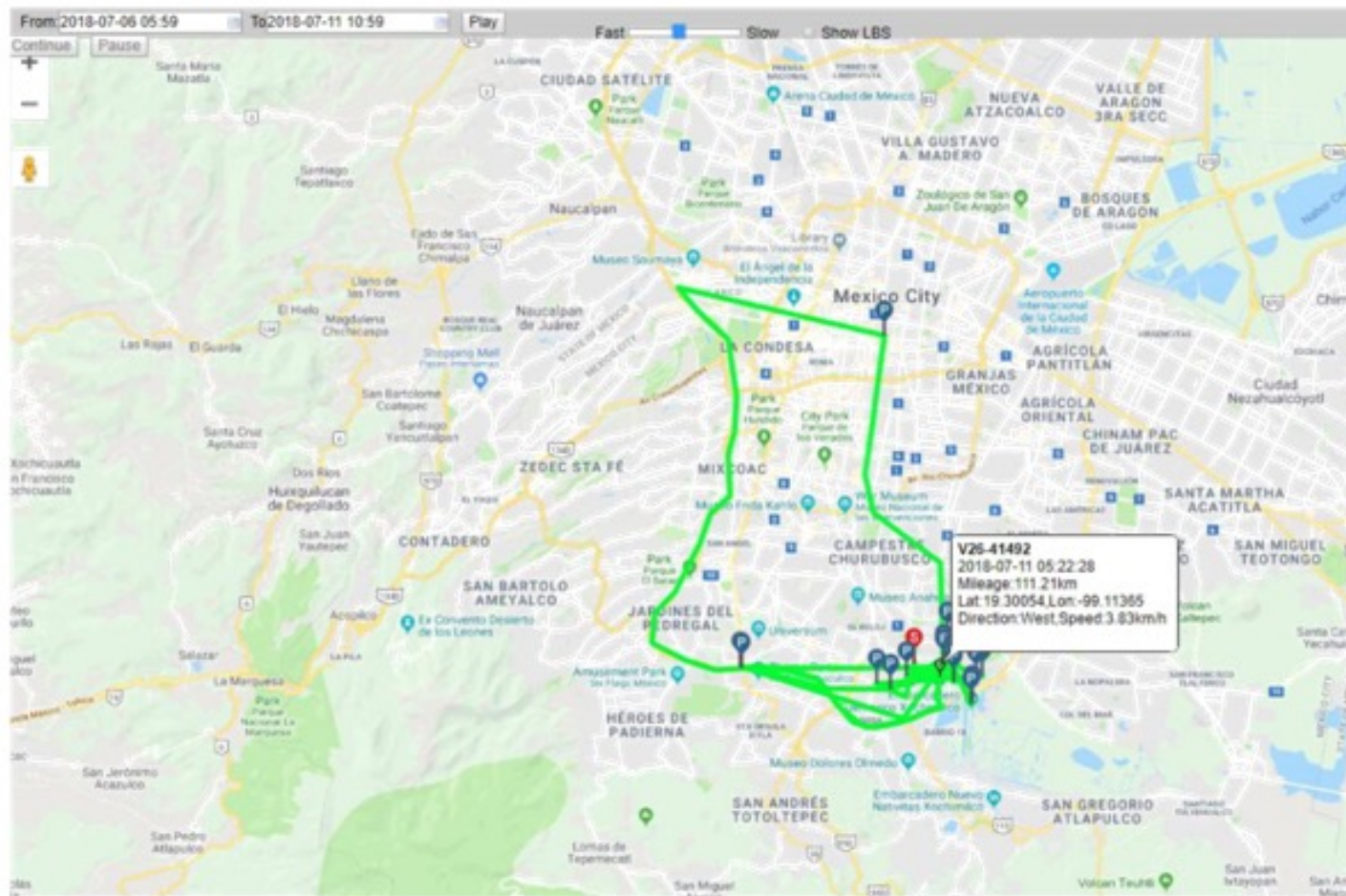
Farmers can use IoT solutions to monitor livestock reproductive cycles and the calving process to promote safer and more successful outcomes.

IoT sensors can be used to track an animal's location, which can be helpful in locating sick animals as well as establishing and optimizing grazing patterns.



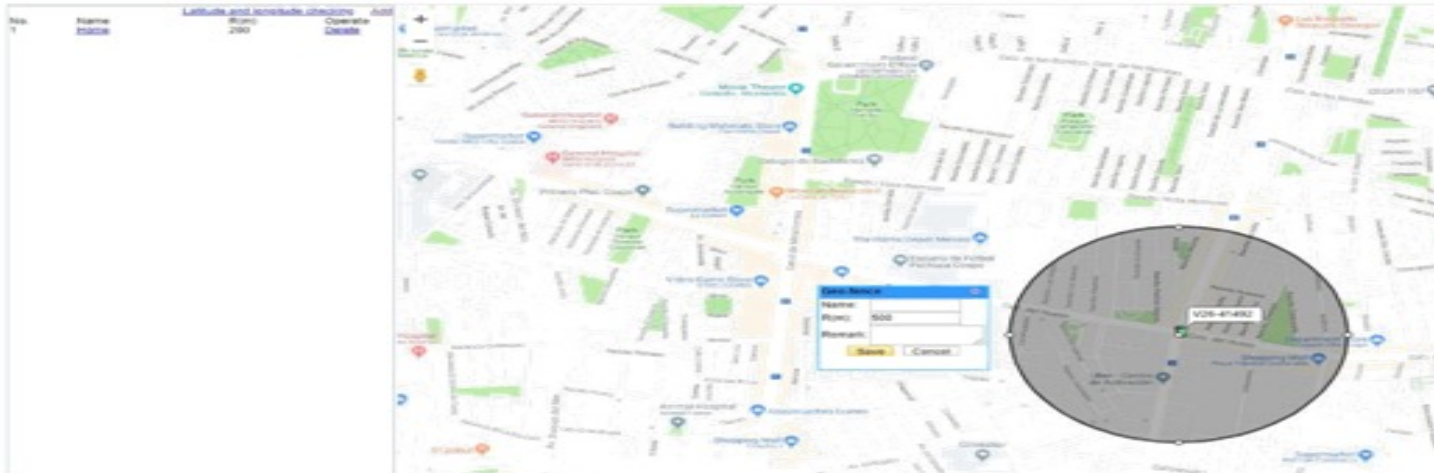
DETECTING EVERY BENEFICIARY LAND

View the land once digitally mapped (in various colors)



ONCE DIGITIZED

Farms will have access to 5G technologies, access to 4 industrial technologies, will be ready to be digitally managed and monitored



We then mark the farm as digitized using a place marker on Google or Bing Map



Outcome of the Digitization Process

1. Farms are digitally visible globally and can be instantly located
2. Farms can be connected to any most recent technologies including 4iR, Ai, 5G, satellites
3. Farms can be monitored and managed digitally from anywhere in the world
4. Farmers may store the data on the farm digitally
5. Farm can integrate with machinery, equipment, tools, as it can be connected to the internet

**STEP
TWO**

We analyze the soil

We use this to generate a detailed report on the historical soil data to help the farmer understand the farm better



Outcome – Soil prescription

- fertilizer spreader
- pesticide sprayer
- seed driller
- row seeder
- Water usage
- climate



Visualization Monitoring of Nutrients

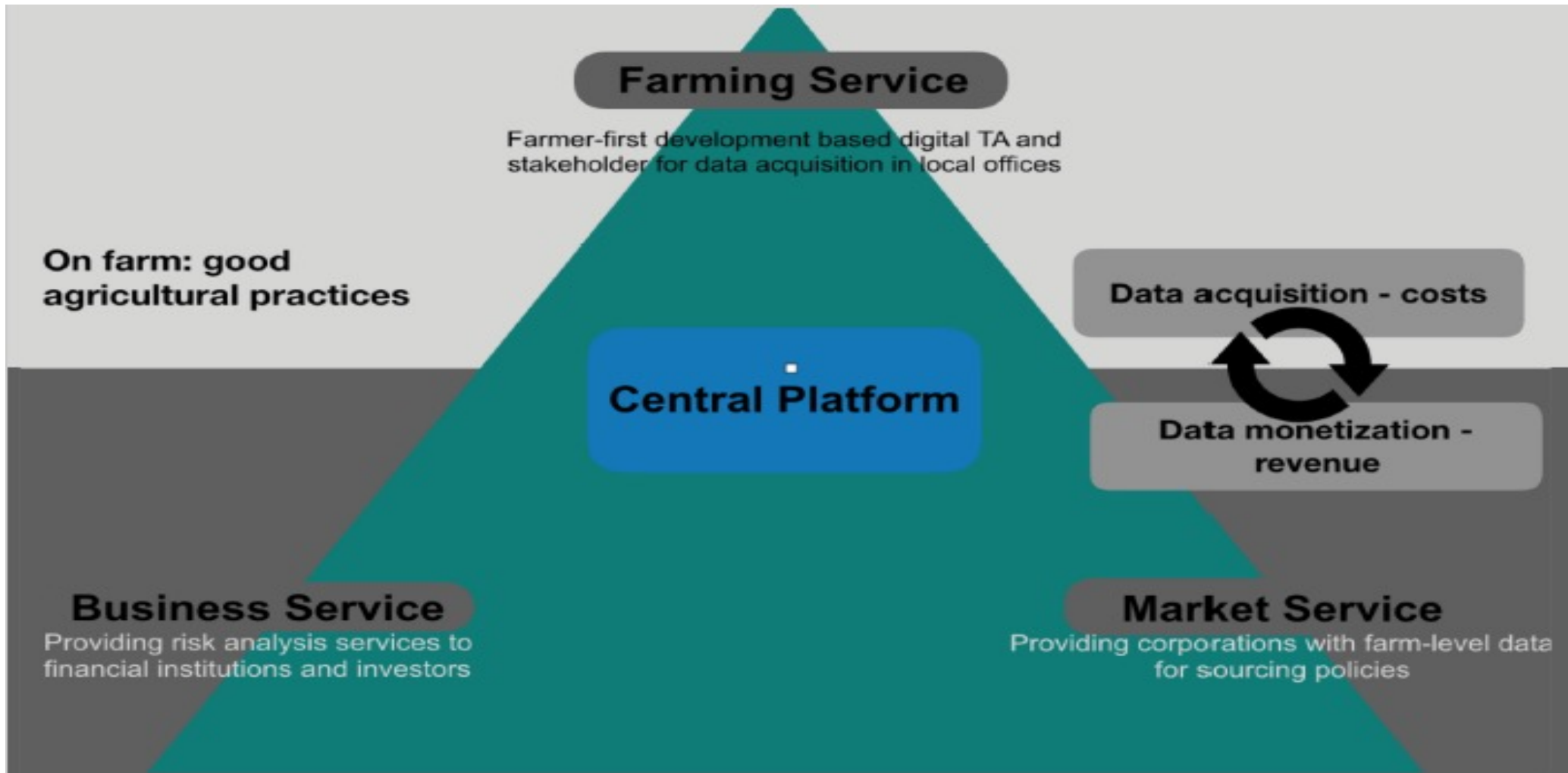


The ton/ha calculated by the actual area for each Paddock gives us the tons of Soil Organic Carbon currently sequestered in the soil.

Every tons of organic carbon is the equivalent of about 3.67 tons of atmospheric carbon dioxide.

Our Innovation – MVP using APP

Digital Decision Engine

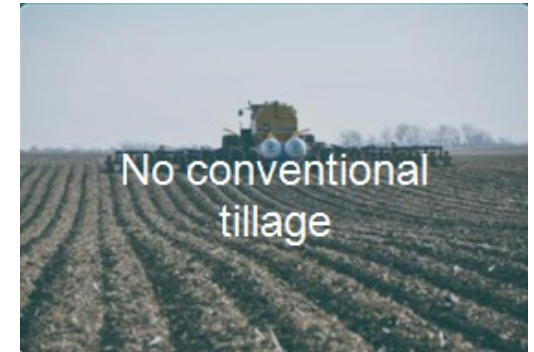


REGULAR MONITOR THE FIELDS

Consistency & permanence is the basis of success

To avoid reversals of GHG removals and thus ensuring validity and tradability of certificates.

Tracking multiple activities to quantify all CO₂_e reductions & removals



We closely monitor the application of the Regenerative (**produce food with fewer environmental and social impacts**) Agriculture Farming practices :

Farmers Using Own Practice

- Process – we will allow those farmers to continue using chosen practice (any of above).
- We will introduce monitoring, and management tools
- We will ensure the practice uses approved global standards
- We will submit for verification

Farmers NOT using ANY Proven Practice

- Process – We will introduce our acceptable Practice
- We will measure, monitor, manage
- We will submit for verification and certification

The Ask

Based on Land Size

Drawdowns based on Use Of Funds

Digitization and monitoring for the 1st 12 months

\$200,000

Not all gases are the same:

1 tonne of carbon dioxide CO₂ =
1 tonne of methane CH₄ =
1 tonne of nitrous oxide N₂O =

1 tonne of CO₂ e-
28 tonnes of CO₂ e-
265 tonnes of CO₂ e-



Our Operational Team

1. Jabu is a key player in the business, he has over 30 years business, founder of the business
2. Ray Pillai is an expert in Financial Management
3. Ms. Dudu Thabede is the CEO with over 25 years marketing, public relations, management consulting
4. Vela Dlungele Is an expert in Telecom, satellite Technologies
5. Norman Ngema– expert in Training And Extension Services industry
6. Moira is the Founder and is the finance executive
7. Corey McKnight international Market Expert

More than 60 years of combined business experience make this successful team to lead the expansion of the organization

SmartAgriIoT Team? Women, Board



Jabu
Technical Founder



Dr. Patricia Mokoena
Agronomist



Smangele
Director & Co-Founder



Amanda
Precision Agriculture Specialist



Dudu
CEO



Peter
CFO



Kay
Chief Human Relations



Vela
Chief Biodiversity

Theory of Change

If We

Then

SDG Targets

Build Africa's Largest Farmers GHG offset market, providing smallholder farmers with:

- Access to Capital on a Pay As You Go Basis or PAYLATER
- Access to advisory on better agriculture practices and modern techniques
- Access to skilled resources and unaffordable technologies to manage, monitor their farms

Farmers will have the resources to grow high-yield competitive farms, enabling us to build an Africa that feeds herself and the world...

...leading to the accomplishment of our 2030 SDG targets :

- **No Poverty:** 15 million farmers earning 2x above minimum wage
- **Zero Hunger:** Increase the productivity of 15 million farmers and provide them with market access
- **Decent Work & Economic Growth:** 15 million farmers, 3,000 full-time employees, 300,000 contract employees
- **Industry, Innovation and Infrastructure:** \$2.3B credit disbursed to smallholder farmers.



We Measure Impact

smartagriot

farm digitization and management

Share Edit Priorities

Created by: jabu madlala, founder at SmartAgriot
Last Modified: Jul 29, 2020
Impact Theme: Smallholder Agriculture

INCREASING FOOD SECURITY THROUGH SMALLHOLDER FARMS

INCREASING FARM PROFITABILITY

IMPROVING RURAL ECONOMIES THROUGH FINANCIAL INCLUSION

- Summary
- Overview
- Evidence
- Core Metrics Set
- Guidance
- Resources

STRATEGIC GOAL

Increasing Food Security through Smallholder Farms

Investments in line with this Strategic Goal aim to improve food security by increasing crop productivity and profitability, increasing diversity and resilience of food produced, improving storage options, and increasing access to food in general.

The sections below include an overview of the approach for achieving desired goals, supporting evidence, core metrics that help measure performance toward goals, and a curated list of resources to support collecting, reporting on, and using data for decision-making.

SMALLHOLDER AGRICULTURE 

SDGs: Most direct link



SDGs: Also linked to



Impact1

Improved environment – less soil carbon emitted

High Yields – Less Wastage

Skills and education to rural communities

Sustainable farming communities

Employment

2022



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WSIS FORUM 2021

Starting from January
Final Week 17-21 May 2021



TECHTRIBE ACCELERATOR



Smart AgriOT is a cloud-based digitisation and farm management platform for smallholder farmers to promote precision agriculture solutions, including data gathering by satellites and drones, weather information and soil sensors as well as other data-driven farming practises. They aim to build a world with no poverty or hunger by providing low-cost solutions that enable smallholder farmers to meet the needs of their direct and broader communities.

WINNER
2nd PLACE

